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**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/581,213 06/22/00 NISHIO

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EXAMINER

PM82/1003

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ART UNIT

PAPER NUMBER

3629

DATE MAILED:

10/03/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

# Office Action Summary

Application No.

09/581,213

Applicant(s)

NISHIO, KIYOSHI

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 52. Correction is required.

Figures 7-9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

### ***Claim Objections***

Claim 5 is objected to because of the following informalities:

Claim 5, lines 2-3, change from "are disposed with being separated" to "are separated". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as

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to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recites the broad recitation "an inclination angle of 1 to 60°", and claim 3 recites "the inclination angle of said conical tapered face of said projection tip end portion of the inner ring with respect to the axis is set to 5 to 20°" which is the narrower statement of the range/limitation.

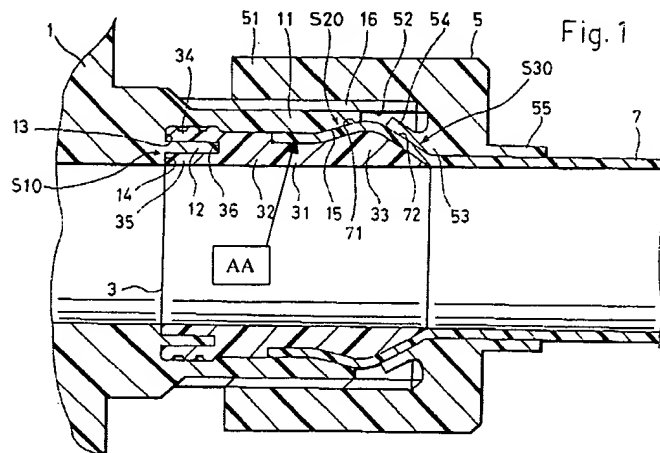
***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

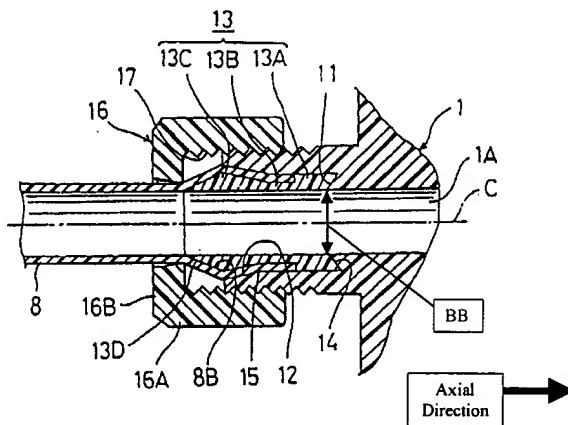
Claims 1, 2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6089621, Nishio in view of US patent 5553900, Fukumoto et al.

In regards to claim 1, in figure 1 below,



Nisho discloses a pipe joint made of resin, comprising a sleeve-like inner ring (3) which is to be pressingly inserted into one end portion of a pipe member (7) to be integrated with the pipe member under a state where the inner ring is outward protruded in an axial direction from one end portion of the pipe member; a joint body (1) in which a cylindrical receiving port (11) is formed in one end portion, an insertion portion (AA) of the pipe member into which the inner ring is pressingly inserted being to be inserted into the receiving port; and a pressing ring (5) which is to be screwed to the one end portion of the joint body, presses the inner ring from an outer side of the pipe member by means of screw advancement (16, 52) toward the one end portion of the joint body, to cause a projected tip end portion (34) of the inner ring to abut against an inner area (22) of the receiving port of the joint body, thereby forming a sealing portion, wherein a cylindrical groove (13) is formed in an inner area of the receiving port of the joint body, the projected tip end portion of the inner ring is to be fitted into the axial direction, and the groove cooperates

with at least one of a place (21) of the inner radial face and a place (44) on a side of an outer radial face of the projected tip end portion, to form the sealing portion. Nishio does not disclose an inner radial face of the projected tip end portion of the inner ring being formed as a conical tapered face in which a diameter is larger as further moving toward an outer side in the axial direction. In figure 2 below,



**FIG. 3**

Fukumoto et al teaches an inner

radial face (11) of a projected tip end portion (13a) of a inner ring (13) being formed as a conical tapered face in which a diameter (BB) is larger as further moving toward an outer side in the axial direction, to provide a strong sealing force assuring high sealing properties (column 7, lines 55-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate an inner radial face of the projected tip end portion of the inner ring with a conical tapered face in which a diameter is larger as further moving toward an outer side in the axial direction, to provide a strong sealing force assuring high sealing properties, as taught by Fukumoto et al.

In regards to claim 2, Fukumoto et al discloses the conical tapered face of the projected tip end portion of the inner ring being formed to have an inclination angle of 1 to 60° with respect to an axis (column 7, line 60-61).

In regards to claim 4, Nishio discloses one or plural projections (38) being projected in a radially outward direction and abut against an inner peripheral face of the receiving port of the joint body to form the sealing portion are disposed on the outer radial face of the projected tip end portion of the inner ring.

In regards to claim 5, Nishio discloses the one or plural projections being separated from one another by a gap (37) in the axial direction.

In regards to claim 6, Fukumoto et al discloses the outer radial face of the projected tip end portion of the inner ring being formed as a conical tapered face in which a diameter is smaller as further moving toward an outer side in the axial direction.

In regards to claim 7, Fukumoto et al discloses the outer radial face of the projected tip end portion of the inner ring on which the projections being formed is formed as a conical tapered face in which a diameter is smaller as further moving toward an outer side in the axial direction.

In regards to claim 8, Nishio discloses a cylindrical portion which abuts against an inner peripheral face of a cylindrical portion on an inner radial side of the cylindrical groove of the joint body being formed integrally with an inner radial side of the projected tip end portion of the inner ring.

In regards to claim 9, Nishio discloses a cylindrical portion which abuts against an inner peripheral face of a cylindrical portion on an inner radial side of the cylindrical

groove of the joint body being formed integrally with an inner radial side of the projected tip end portion of the inner ring on which the projections are formed.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishio in view of Fukumoto et al. Nishio in view of Fukumoto et al discloses the claimed invention except for the inclination angle of the conical tapered face of the projected tip end portion of the inner ring with respect to the axis being set to 5 to 20°. It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the inclination angle of the conical tapered face of the projected tip end portion of the inner ring with respect to the axis to 5 to 20°, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is (703) 306-3436. The examiner can normally be reached on Monday - Friday between 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

.amd  
September 24, 2001



**Lynne H. Browne**  
**Supervisory Patent Examiner**  
**Technology Center 3620**